



FILED

01-07-08

04:59 PM

**BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA
AND THE CALIFORNIA ENERGY COMMISSION**

Order Instituting Rulemaking to Implement the
Commission's Procurement Incentive
Framework and to Examine the Integration of
Greenhouse Gas Emissions Standards into
Procurement Policies

Rulemaking 06-04-009
(Filed April 13, 2006)

AB 32 Implementation

CEC Docket
07-OIIP-01

**COMMENTS OF THE ENERGY PRODUCERS AND USERS COALITION
AND THE COGENERATION ASSOCIATION OF CALIFORNIA
ON MODELING-RELATED ISSUES**

Michael Alcantar
Donald Brookhyser
Alcantar & Kahl LLP
1300 SW Fifth Avenue
Suite 1750
Portland, OR 97201
503.402.9900 office
503.402.8882 fax
mpa@a-klaw.com
deb@a-klaw.com

Counsel to the
Cogeneration Association of California

Evelyn Kahl
Seema Srinivasan
Alcantar & Kahl LLP
120 Montgomery Street
Suite 2200
San Francisco, CA 94104
415.421.4143 office
415.989.1263 fax
ek@a-klaw.com
sls@a-klaw.com

Counsel to the
Energy Producers and Users Coalition

January 7, 2008

**BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA
AND THE CALIFORNIA ENERGY COMMISSION**

Order Instituting Rulemaking to Implement the
Commission's Procurement Incentive
Framework and to Examine the Integration of
Greenhouse Gas Emissions Standards into
Procurement Policies

Rulemaking 06-04-009
(Filed April 13, 2006)

AB 32 Implementation

CEC Docket
07-OIIP-01

**COMMENTS OF THE ENERGY PRODUCERS AND USERS COALITION
AND THE COGENERATION ASSOCIATION OF CALIFORNIA
ON MODELING-RELATED ISSUES**

The Energy Producers and Users Coalition (EPUC)¹ and the Cogeneration Association of California (CAC)² submit the following comments on modeling-related issues pursuant to the November 9, 2007 Administrative Law Judge's Ruling (Ruling).

I. INTRODUCTION

The Energy and Environmental Economics, Inc.'s (E3) modeling effort will provide information about the cost of the state's emission reduction efforts using different resources and tools. Largely missing from the model and its calculator are combined heat and power (CHP) resources. Given the current contribution of these

¹ EPUC is an *ad hoc* group representing the electric end use and customer generation interests of the following companies: Aera Energy LLC, BP West Coast Products LLC, Chevron U.S.A. Inc., ConocoPhillips Company, ExxonMobil Power and Gas Services Inc., Shell Oil Products US, THUMS Long Beach Company, Occidental Elk Hills, Inc., and Valero Refining Company – California.

² CAC represents the power generation, power marketing and cogeneration operation interests of the following entities: Coalinga Cogeneration Company, Mid-Set Cogeneration Company, Kern River Cogeneration Company, Sycamore Cogeneration Company, Sargent Canyon Cogeneration Company, Salinas River Cogeneration Company, Midway Sunset Cogeneration Company and Watson Cogeneration Company.

resources to California's energy mix and the Commission's recognition and appreciation of these resources, the absence of CHP-specific information must be corrected.

The difficulty integrating emission and cost data for CHP into an electricity production simulation model is understandable. There are at least three characteristics of CHP which require some particular treatment in the model in order to adequately measure the contribution of CHP. First, CHP creates complexity because it sits astride two sectors, supply and demand, with both electric and thermal outputs. Consequently, the thermal production must be accounted for in some way in the model, or an allocation method between thermal and electrical outputs must be used. Second, unlike conventional resources, installation of new CHP facilities that serve on-site load can reduce transmission losses and, in some cases, avoid transmission investment. Third, the E3 model looks at the impacts of GHG reduction tools on ratepayer costs; the costs of CHP which serves on-site load, however, do not flow to ratepayers.

The assumptions applicable to conventional generators do not apply to CHP facilities. For these reasons, inclusion of CHP must be done with the following considerations in mind:

- To allow an apples-to-apples comparison of the emissions generated by electricity generation, the model must allocate emissions of a CHP facility between its thermal and electrical outputs;
- Treatment of the cost of a CHP facility serving on-site load requires modification; and
- Transmission cost reductions or cost avoidance associated with CHP serving on-site load must be reflected.

In addition to these issues, the model must reflect two other general considerations.

- Prioritizing resources including CHP must be done consistent with the Energy Action Plan's (EAP II) preferred loading order; and

- The aggressive policy results base case should reflect expansion of CHP resources as described in the California Energy Commission's (CEC) high deployment scenario.

All of these issues are discussed below.

II. TO REALIZE THE FULL EMISSIONS REDUCTION POTENTIAL OF CALIFORNIA RESOURCES, THE E3 MODEL MUST INCLUDE CHP

E3's model currently includes some CHP placeholders but does not otherwise adequately incorporate CHP resources into its analysis or GHG Calculator. This resource data must be included to allow the model to accurately consider the full range of tools available to meet the AB 32 target.

A. Integration and Expansion of CHP Will Be an Indispensable Tool in the State's Efforts to Achieve Emissions Targets

CHP is the most efficient technology for converting primary fuel into electricity and heat. Current California CHP capacity is roughly 9.2 GWe, which saves from 11 to 22 million MTCO₂ emissions annually compared with the separate production of thermal and electric energy.³ As the CEC's 2005 CHP Report provides:

*The use of CHP systems in commercial, industrial, and multifamily residential establishments could improve the overall efficiency of energy use by displacing fuel used for boilers while at the same time displacing marginal, predominantly gas-fired, sources of electricity generation.*⁴

This conclusion drove the CEC to undertake a research project to provide input to the Integrated Energy Policy Report regarding the potential for expansion of CHP resources

³ The range depends upon the assumption used to determine the power generation emissions that were displaced with the CHP development.

⁴ EPRI, *Assessment of California CHP Market and Policy Options for Increased Penetration: PIER Collaborative Report* (CEC CHP Report) (CEC-500-2005-173), at viii.

in California.⁵ According to the CEC CHP Report, an additional 2,000 MWe to 7,340 MWe could be developed in California by 2020, for about 112 million tons of CO₂ emission reductions.⁶ CHP is a tool that has the potential to play a large role in lowering emissions, as recognized by the EU-ETS.⁷ CHP should therefore be maximized to increase primary energy savings and GHG reductions.

B. Aggressive Policy Results Must Consider All Tools With Emission Reduction Potential

The E3 modeling effort focuses on the development of two base cases: a business as usual approach and an aggressive policy result. As clarified in its documentation overview, the differences between the two base cases are energy efficiency and renewable targets:

In the first ‘business as usual’ case, resources are added based on an assumption that current levels of energy efficiency persist and a 20% RPS standard is reached through 2020. In the second ‘aggressive policy’ case, resources are added to satisfy goals that are increased from current goals such as a 33% RPS and high goals for energy efficiency saving in 2020.⁸

The aggressive policy result should incorporate all technologies that are capable of lowering emissions. Noticeably missing from the aggressive policy set of assumptions is increased reliance on CHP resources.

⁵ *Id.*

⁶ *Id.*, at 2-24.

⁷ See generally Directive 2004/8/EC of the European Parliament and of the Council on the Promotion of Cogeneration Based on a Useful Heat Demand in the Internal Energy Market and Amending Directive 92/42/EEC, dated February 11, 2004 (“Promotion of high-efficiency cogeneration based on a useful heat demand is a Community priority given the potential benefits of cogeneration with regard to saving primary energy, avoiding network losses and reducing emissions, in particular of greenhouse gases.”); The Second European Climate Change Programme Working Group ECCP Review – Topic Group Energy Supply Final Report, at 1.

⁸ E3 Documentation Overview, at 2.

The CEC's CHP Report provides information regarding the integration and full potential of CHP resources. The report contains several base cases including low deployment, moderate market access, aggressive market access, and high deployment cases. To reflect aggressive policy results, this base case should reflect the high deployment case described in the CEC CHP Report. Under this scenario, total CHP market penetration reaches 7,340 MW with certain incentives in place.⁹ The high deployment case results in energy savings of up to 1,900 trillion Btu, customer net reduction in energy costs of \$6 billion, and CO₂ emissions reduction of 112 million tons.¹⁰ Without CHP resources, the aggressive policy results base case does not accurately reflect the full gamut of available GHG emission reduction tools.

III. TO ACCURATELY MODEL COSTS ASSOCIATED WITH EMISSIONS REDUCTION POTENTIAL, CHP MUST PROPERLY BE INTEGRATED INTO THE MODEL

CHP differs from other types of generating resources because (i) it has both a thermal and electricity output and (ii) it can be used to self-serve load that exists behind-the-meter. Consequently, as explained below, certain CHP characteristics must be reflected in E3's model.

A. The Dual Output of CHP Resources Requires the Model to Count Emissions in a Way That Allows an Apples-To-Apples Comparison of Resources

The emissions of a CHP facility include those associated with its thermal and electricity outputs, unlike other electricity resources that are responsible only for

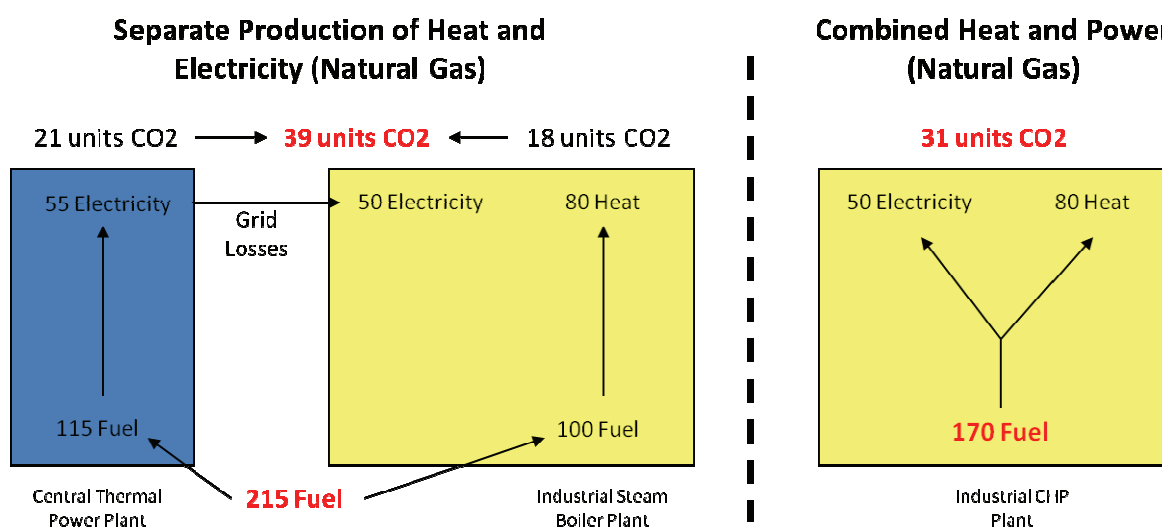
⁹ See CEC CHP Report, at 2-18. The high deployment scenario assumes the existence of the following incentives: incentives existing in 2005, facilitation of the power export market, addition of a transmission and distribution support payment, a CO₂ reduction payment, the rapid development and deployment of advanced technology, and an increased willingness of customers to improve customer attitudes toward CHP investment opportunities.

¹⁰ CEC CHP Report, at 2-24.

emissions associated with electricity generation. The total emissions from a CHP plant are not a fair measure of emissions attributable to electricity production. Consequently, the emissions associated with thermal production should be subtracted from total facility emissions to get a pure “electricity sector” snapshot.

For purposes of the E3 modeling, the simplest and most straight forward way of allocating emissions for the GHG model is to assume the emissions associated with producing the useful heat product that would have been made by a boiler if the investment in CHP had not been made. The remaining emissions associated with the CHP facility would be attributed to electricity production. It should be noted that this process may be different from the allocation of fuel or emissions for other reporting requirements.

The following example illustrates how emissions would be calculated. In the example below, the boiler efficiency for steam production is assumed to be 80% on an annual basis.



The calculation of electricity-generated emissions is based on the following formula:

$$CHP_{f(e)} = CHP_f - (CHP_h / B_{\mu})$$

Where:

$CHP_{f(e)}$ is the fuel used to produce electricity from the CHP facility

CHP_f is the total fuel used by the CHP facility

CHP_h is the useful heat produced by the CHP facility

B_μ is the boiler efficiency.

Applying the numbers in the example to the formula, the fuel used to produce electricity is 70 units.¹¹

$$CHP_{f(e)} = 170 \text{ units of fuel} - (80 \text{ units of heat} / .80)$$

$$CHP_{f(e)} = 170 \text{ units of fuel} - 100 \text{ units of heat}$$

$$CHP_{f(e)} = 70 \text{ units of fuel}$$

Accordingly, the emissions attributed to electricity production should be derived from the use of 70 units of fuel, rather than the 170 units of fuel used to produce both thermal and electric outputs. This allocation method will allow the emissions associated with electricity generation to be compared with other generating resources that solely generate emissions from electricity generation.

B. Use of CHP to Serve On-Site and LSE Load Requires Different Cost Treatment

E3's model, in part, quantifies emission reduction costs by looking at consumer (*i.e.*, ratepayer) impact. The formula used by the model assumes that the total cost of a facility including costs associated with transmission flow through to the electric consumers in a manner consistent with traditional cost of service treatment for ratepayers. As explained below, this simplistic cost assumption does not adequately model a CHP facility that serves behind-the-meter load.

¹¹ The formula assumes that both fuel and energy production are stated in the same units, such as BTUs.

A CHP facility serving on-site load uses the thermal energy and electricity it generates to serve the needs of its local industrial host. Electricity generated to serve on-site load is not sold to any retail service provider and is not transmitted on the transmission grid. Moreover, the determination of the “electric energy-related portion” of a CHP facility cost is a complex allocation issue requiring knowledge of the individual industrial processes. The E3 model simplistically assumes that the total CHP facility costs get passed through to the ratepayer.¹² This assumption will overestimate the costs of CHP.

Additionally, it is not accurate to assume that use of CHP to serve on-site load imposes a transmission cost on ratepayers. Where self-generated electricity is used to serve on-site load, it

- Reduces the strain on the grid because generation is close to load;
- Reduces grid losses by displacing bulk electricity transport and transformer losses; and
- In some cases, reduces investment needs for new grid infrastructure.¹³

CHP generation used for on-site load *reduces* system transmission costs. Currently, the E3 model does not appear to consider this characteristic of CHP in calculating costs of electricity resources.

It is noteworthy that from the standpoint of electric power sold over the transmission grid by a CHP facility, the cost of the electric power to ratepayers is the “avoided cost payments” made to the CHP facility consistent with Commission policy. For this reason, the actual total cost of the CHP facility is not an appropriate consideration in determining impacts on ratepayer costs.

¹² The model calculates costs for ratepayers. It is unclear whether ratepayers are limited to utility ratepayers or include ESP customers.

¹³ Prepared Direct Testimony of J. Ross and D. Schoenbeck, submitted in R.06-02-013, at 40.

In short, CHP facilities impact the system differently from other conventional resources. EPUC/CAC look forward to working with E3 to incorporate these features into the GHG model.

IV. ASSUMPTIONS REGARDING PRIORITIZING OF RESOURCES SHOULD MIMIC THE EAP II'S PREFERRED LOADING ORDER

Under E3's model, once 2020 load is determined, resources are chosen in a particular order to satisfy load. This order should reflect the EAP II's preferred loading order.

The preferred loading order advocates the use of CHP resources, along with renewables, after energy efficiency and demand response:

*EAP II continues the strong support for the loading order – endorsed by Governor Schwarzenegger – that describes the priority sequence for actions to address increasing energy needs. The loading order identifies energy efficiency and demand response as the State's preferred means of meeting growing energy needs. **After cost-effective efficiency and demand response, we rely on renewable sources of power and distributed generation, such as combined heat and power applications.** To the extent efficiency, demand response, renewable resources, and distributed generation are unable to satisfy increasing energy and capacity needs, we support clean and efficient fossil-fired generation.*

Resources in the E3 model should be used in a manner consistent with the preferred loading order. Accordingly, once 2020 load is established, resources should be used in the following order:

- (1) Energy Efficiency and Demand Response
- (2) Renewables and CHP
- (3) Fossil-Fired Generation

Prioritizing of resources in this order will ensure that CPUC and CEC policy is accurately reflected in the model.

V. ANSWERS TO SPECIFIC QUESTIONS

Q1. *Does Attachment A cover all of the viable emissions reduction measures available in the electricity and natural gas sectors? If not, what other measures should be considered for the purposes of forecasting emissions reduction potential within these sectors? Please include suggested data sources and references for information regarding any additional measure you purpose.*

Attachment A recognizes the potential of CHP to provide additional emission reductions but does not list CHP as an “existing control measure.” As noted in the attachment, “CHP installations improve generation efficiency [and] [a]ttendant with the reduction of energy use come reductions in GHG emissions . . .” The attachment also acknowledges that “CHP units already provide 9.2GW of capacity within California.” Accordingly, CHP should be included as an existing emission reduction tool as it currently contributes to the state’s efforts to lower emissions.

Q2. *Are there emission reduction measures identified within Attachment A that you believe, based on currently available information, should not be implemented as a means to achieving emission reductions within the context of AB 32? Please justify your answer.*

EPUC/CAC have no view on this issue.

Q3. *What means beyond policies currently adopted by the two Commissions hold potential for the delivery of additional energy efficiency?*

The encouragement of CHP through the creation of a separate CHP sector, the use of appropriate emission allocation protocols and a strong supportive policy framework can further the state’s efforts to promote energy efficiency.¹⁴

Given CHP’s unique characteristics and contribution to GHG reduction, a separate sector for CHP should be created. As discussed in Section II(A), the use of CHP is more efficient than the separate production of heat and power but its installation increases on-site emissions. CHP’s unique position in the energy sector requires careful treatment both to avoid creating disincentives to the development of new CHP and to encourage continued operation of existing facilities. Regulation of CHP as a separate sector would best allow for the emissions associated with CHP to be counted in a manner that recognizes the CHP’s contribution to global emissions reductions. Where that is not possible, for purposes of electricity sector modeling, the counting method advocated in Section III is a way to ensure an apples-to-apples comparison of resources.

¹⁴ See Attachment A to November 9, 2007 ALJ Ruling, at 8.

E3, to the extent it considers CHP, has included CHP in the electricity sector. This approach to modeling CHP should be allowed only if it accurately calculates the real benefit of CHP and only if this practice does not pre-determine or conflict with the use of a separate sector for CHP.

A strong supportive policy framework is also required to allow the state to realize material emissions reductions from CHP resources. As Attachment A and the CEC has recognized, CHP market potential can be as high as nearly 7,340MW of new CHP by 2020.¹⁵ Attachment A also observes that “[r]emoving market barriers and disincentives to the installation of CHP units will be essential to achieving the outer bounds of CHP market potential.”¹⁶ To maximize GHG reductions from CHP, therefore, the GHG policy framework should include the following features:

- Portfolio set-aside for CHP power purchases by the utilities, similar to the RPS;
- Reasonable pricing provisions for power purchases from CHP facilities;
- Removal of deployment barriers, including eliminating departing load charges; and
- Regulatory incentives for utilities to procure from CHP resources.

Q4. What means beyond policies currently adopted by the two Commissions hold potential for the integration of additional renewable resources into the grid?

EPUC/CAC have no view on this issue.

Q5. How might an emissions reduction strategy within the electricity sector be targeted to displace the most carbon intensive aspects of California’s electricity resource mix?

A cap-and-trade program provides continuing incentives to market participants to identify and invest in emission-lowering tools.¹⁷ A cap-and-trade program, including the electricity sector, will ensure that emission reductions can take place and take place in a cost-effective manner.

¹⁵ See Attachment A to November 9, 2007 ALJ Ruling, at 8; EPRI, *Assessment of California CHP Market and Policy Options for Increased Penetration: PIER Collaborative Report* (CEC-500-2005-173).

¹⁶ *Id.*

¹⁷ MAC Report, at 7.

Q6. Does E3's modeling documentation adequately document the methodology, inputs, and other assumptions underlying its model? If not, what additional documentation should be added?

E3's modeling documentation fails to include CHP data and assumptions. EPUC/CAC look forward to working with E3 to integrate this information into the model.

Q7. Provide feedback, as desired or appropriate, on the structure and approach taken by E3 in its GHG Calculator spreadsheet tool.

The GHG Calculator spreadsheet tool is a device that is meant to allow stakeholders to evaluate rate impacts if they alter the 2020 target resource mix. Currently in the absence of CHP data, there is no way to evaluate the benefits of expanding reliance on CHP resources. Once CHP data is added into the model, the GHG Calculator spreadsheet tool must allow parties to adjust the use of these resources.

Q8. Provide feedback, as desired or appropriate, on the data sources used by E3 for its assumptions in its issue papers. If you prefer different assumptions or sources, provide appropriate citations and explain the reason for your preference.

E3 is securing information about generating resources from the TEPPC WECC database. This database does not list all of the generating resources that should be included into its GHG modeling effort and therefore requires supplementation.

Q9. Are uncertainties inherent in the resource potential and cost estimates adequately identified? Does E3's model provide enough flexibility to test alternative assumptions with respect to these uncertainties?

As discussed in Section III, the model requires some changes to its calculation of the cost of electricity resources. Further analysis of the data and cost estimates can be provided once CHP data is integrated into the model.

Q10. Has the E3 model adequately accounted for the implications of increased reliance on preferred resources (renewables, efficiency) on system costs?

No. CHP is a preferred resource that has not been modeled correctly. As discussed in Section III, the input data, assumptions and formulas used to calculate cost and quantify emissions require adjustment. EPUC/CAC look forward to working with E3 on these and other issues that arise.

Q11. Should E3's model, in Stage 2, attempt to model potential market transformation scenarios, in the form of cost decreases, new technologies, or behavioral changes? What might be an appropriate way to characterize such potential for market transformation?

As discussed more fully above, the modeling should include the effects of a more robust deployment of CHP.

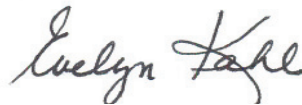
Q12. What specific flexible GHG emission reduction mechanisms to mitigate the economic impacts of achieving the desired GHG emission reductions should be modeled in Stage 2?

All flexible emission reduction mechanisms should be evaluated in Stage 2. Among these, the impacts of a cap-and-trade program and an early action credit program should be evaluated.

Q13. What output metric or metrics should be utilized to evaluate the least cost way to meet a 2020 emission reduction target for the sector?

Cost per MTCO₂ is a standard performance metric to evaluate the least cost strategy to meet an emissions target. In addition, it would be useful to compare and evaluate the following information: total electrical demand, share of renewable resources and share of CHP resources.

Respectfully submitted,



Evelyn Kahl
Michael Alcantar
Seema Srinivasan

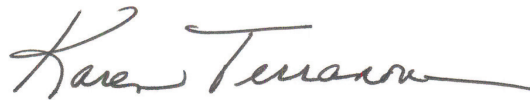
Counsel to the
Energy Producers and Users Coalition and the
Cogeneration Association of California

January 7, 2008

CERTIFICATE OF SERVICE

I, Karen Terranova hereby certify that I have on this date caused the attached **Comments of the Energy Producers & Users Coalition and the Cogeneration Association of California on Modeling Related Issues** in R.06-04-009 to be served to all known parties by either United States mail or electronic mail, to each party named in the official attached service list obtained from the Commission's website, attached hereto, and pursuant to the Commission's Rules of Practice and Procedure.

Dated January 7, 2008 at San Francisco, California.

A handwritten signature in dark ink, appearing to read "Karen Terranova", with a long horizontal flourish extending to the right.

Karen Terranova

STEVEN S. SCHLEIMER
BARCLAYS BANK, PLC
200 PARK AVENUE, FIFTH FLOOR
NEW YORK, NY
steven.schleimer@barclayscapital.com

STEVEN HUHMAN
MORGAN STANLEY CAPITAL GROUP INC.
2000 WESTCHESTER AVENUE
PURCHASE, NY
steven.huhman@morganstanley.com

RICK C. NOGER
PRAXAIR PLAINFIELD, INC.
2711 CENTERVILLE ROAD, SUITE 400
WILMINGTON, DE
rick_noger@praxair.com

KEITH R. MCCREA
SUTHERLAND, ASBILL & BRENNAN, LLP
1275 PENNSYLVANIA AVE., N.W.
WASHINGTON, DC
keith.mccrea@sablaw.com

ERIN M. MURPHY
MCDERMOTT WILL & EMERY LLP
600 THIRTEENTH STREET, N.W.
WASHINGTON, DC
emmurphy@mwe.com

MICHAEL A. YUFFEE
MCDERMOTT WILL & EMERY LLP
600 THIRTEENTH STREET, N.W.
WASHINGTON, DC
myuffee@mwe.com

LISA M. DECKER
CONSTELLATION ENERGY GROUP, INC.
111 MARKET PLACE, SUITE 500
BALTIMORE, MD
lisa.decker@constellation.com

KEVIN BOUDREAUX
CALPINE POWER AMERICA-CA, LLC
717 TEXAS AVENUE, SUITE 1000
HOUSTON, TX
kevin.boudreaux@calpine.com

E.J. WRIGHT
OCCIDENTAL POWER SERVICES, INC.
5 GREENWAY PLAZA, SUITE 110
HOUSTON, TX
ej_wright@oxy.com

THOMAS DILL
LODI GAS STORAGE, L.L.C.
14811 ST. MARYS LANE, SUITE 150
HOUSTON, TX
trdill@westernhubs.com

PAUL M. SEBY
MCKENNA LONG & ALDRIDGE LLP
1875 LAWRENCE STREET, SUITE 200
DENVER, CO
pseby@mckennalong.com

TIMOTHY R. ODIL
MCKENNA LONG & ALDRIDGE LLP
1875 LAWRENCE STREET, SUITE 200
DENVER, CO
todil@mckennalong.com

STEVE MICHEL
WESTERN RESOURCE ADVOCATES
2260 BASELINE ROAD, SUITE 200
BOULDER, CO
smichel@westernresources.org

JENINE SCHENK
APS ENERGY SERVICES
400 E. VAN BUREN STREET, SUITE 750
PHOENIX, AZ
jenine.schenk@apses.com

JOHN B. WELDON, JR.
SALMON, LEWIS & WELDON, P.L.C.
2850 EAST CAMELBACK ROAD, SUITE 200
PHOENIX, AZ
jbw@slwplc.com

KELLY BARR
SALT RIVER PROJECT
PO BOX 52025, PAB 221
PHOENIX, AZ
kelly.barr@srpnet.com

ROGER C. MONTGOMERY
SOUTHWEST GAS CORPORATION
PO BOX 98510
LAS VEGAS, NV
roger.montgomery@swgas.com

DARRELL SOYARS
SIERRA PACIFIC RESOURCES
6100 NEIL ROAD
RENO, NV
dsoyars@sppc.com

SID NEWSOME
SOUTHERN CALIFORNIA GAS COMPANY
555 WEST 5TH STREET
LOS ANGELES, CA
snewsom@semprautilities.com

DAVID L. HUARD
MANATT, PHELPS & PHILLIPS, LLP
11355 WEST OLYMPIC BOULEVARD
LOS ANGELES, CA
dhuard@manatt.com

CURTIS L. KEBLER
J. ARON & COMPANY
2121 AVENUE OF THE STARS
LOS ANGELES, CA
curtis.kebler@gs.com

DENNIS M.P. EHLING
KIRKPATRICK & LOCKHART NICHOLSON
GRAHAM
10100 SANTA MONICA BLVD., 7TH FLOOR
LOS ANGELES, CA
dehling@klnj.com

GREGORY KOISER
CONSTELLATION NEW ENERGY, INC.
350 SOUTH GRAND AVENUE, SUITE 3800
LOS ANGELES, CA
gregory.koiser@constellation.com

NORMAN A. PEDERSEN
HANNA AND MORTON, LLP
444 SOUTH FLOWER STREET, NO. 1500
LOS ANGELES, CA
npedersen@hanmor.com

MICHAEL MAZUR
3 PHASES ENERGY SERVICES, LLC
2100 SEPULVEDA BLVD., SUITE 38
MANHATTAN BEACH, CA
mmazur@3phases.com

TIFFANY RAU
CARSON HYDROGEN POWER PROJECT LLC
ONE WORLD TRADE CENTER, SUITE 1600
LONG BEACH, CA
tiffany.rau@bp.com

GREGORY KLATT
DOUGLASS & LIDDELL
411 E. HUNTINGTON DRIVE, STE. 107-356
ARCADIA, CA
klatt@energyattorney.com

MAUREEN LENNON
CALIFORNIA COGENERATION COUNCIL
595 EAST COLORADO BLVD., SUITE 623
PASADENA, CA
maureen@lennonassociates.com

RICHARD HELGESON
SOUTHERN CALIFORNIA PUBLIC POWER
AUTHORITY
225 S. LAKE AVE., SUITE 1250
PASADENA, CA
rhelgeson@scppa.org

DANIEL W. DOUGLASS
DOUGLASS & LIDDELL
21700 OXNARD STREET, SUITE 1030
WOODLAND HILLS, CA
douglass@energyattorney.com

PAUL DELANEY
AMERICAN UTILITY NETWORK (A.U.N.)
10705 DEER CANYON DRIVE
ALTA LOMA, CA
pssed@adelphia.net

AKBAR JAZAYEIRI
SOUTHERN CALIFORNIA EDISON COMPANY
2244 WALNUT GROVE AVE. ROOM 390
ROSEMEAD, CA
akbar.jazayeri@sce.com

ANNETTE GILLIAM
SOUTHERN CALIFORNIA EDISON COMPANY
2244 WALNUT GROVE AVENUE
ROSEMEAD, CA
annette.gilliam@sce.com

LAURA I. GENAO
SOUTHERN CALIFORNIA EDISON
2244 WALNUT GROVE AVENUE
ROSEMEAD, CA
Laura.Genao@sce.com

RONALD MOORE
GOLDEN STATE WATER/BEAR VALLEY
ELECTRIC
630 EAST FOOTHILL BOULEVARD
SAN DIMAS, CA
rkmoore@gswater.com

DON WOOD
PACIFIC ENERGY POLICY CENTER
4539 LEE AVENUE
LA MESA, CA
dwood8@cox.net

ALLEN K. TRIAL
SDGE&SCG
101 ASH STREET
SAN DIEGO, CA
atrial@sempra.com

DAN HECHT
SEMPRA ENERGY
101 ASH STREET
SAN DIEGO, CA
dhecht@sempratrading.com

DANIEL A. KING
SEMPRA ENERGY
101 ASH STREET, HQ 12
SAN DIEGO, CA
daking@sempra.com

SYMONE VONGDEUANE
SEMPRA ENERGY SOLUTIONS
101 ASH STREET, HQ09
SAN DIEGO, CA
svongdeuane@semprasolutions.com

THEODORE ROBERTS
SEMPRA GLOBAL
101 ASH STREET, HQ 13D
SAN DIEGO, CA
troberts@sempra.com

JOSEPH R. KLOBERDANZ
SAN DIEGO GAS & ELECTRIC
PO BOX 1831
SAN DIEGO, CA
jkloberdanz@semprautilities.com

BILL LYONS
CORAL POWER, LLC
4445 EASTGATE MALL, SUITE 100
SAN DIEGO, CA
Bill.Lyons@shell.com

THOMAS DARTON
PILOT POWER GROUP, INC.
9320 CHESAPEAKE DRIVE, SUITE 112
SAN DIEGO, CA
tdarton@pilotpowergroup.com

STEVE RAHON
SAN DIEGO GAS & ELECTRIC COMPANY
8330 CENTURY PARK COURT, CP32C
SAN DIEGO, CA
lschavrien@semprautilities.com

GLORIA BRITTON
ANZA ELECTRIC COOPERATIVE, INC.
PO BOX 391909
ANZA, CA
GloriaB@anzaelectric.org

LYNELLE LUND
COMMERCE ENERGY, INC.
600 ANTON BLVD., SUITE 2000
COSTA MESA, CA
llund@commerceenergy.com

TAMLYN M. HUNT
COMMUNITY ENVIRONMENTAL COUNCIL
26 W. ANAPAMU ST., 2/F
SANTA BARBARA, CA
thunt@cecmail.org

JEANNE M. SOLE
CITY AND COUNTY OF SAN FRANCISCO
1 DR. CARLTON B. GOODLETT PLACE, RM.
234
SAN FRANCISCO, CA
jeanne.sole@sfgov.org

JOHN P. HUGHES
SOUTHERN CALIFORNIA EDISON COMPANY
601 VAN NESS AVENUE, STE. 2040
SAN FRANCISCO, CA
john.hughes@sce.com

LAD LORENZ
SOUTHERN CALIFORNIA GAS COMPANY
601 VAN NESS AVENUE, SUITE 2060
SAN FRANCISCO, CA
llorenz@semprautilities.com

MARCEL HAWIGER
THE UTILITY REFORM NETWORK
711 VAN NESS AVENUE, SUITE 350
SAN FRANCISCO, CA
marcel@turn.org

NINA SUETAKE
THE UTILITY REFORM NETWORK
711 VAN NESS AVE., STE 350
SAN FRANCISCO, CA
nsuetake@turn.org

Diana L. Lee
CALIF PUBLIC UTILITIES COMMISSION
505 VAN NESS AVENUE
SAN FRANCISCO, CA
dil@cpuc.ca.gov

F. Jackson Stoddard
CALIF PUBLIC UTILITIES COMMISSION
505 VAN NESS AVENUE
SAN FRANCISCO, CA
fjs@cpuc.ca.gov

AUDREY CHANG
NATURAL RESOURCES DEFENSE COUNCIL
111 SUTTER STREET, 20TH FLOOR
SAN FRANCISCO, CA
achang@nrdc.org

EVELYN KAHL
ALCANTAR & KAHL, LLP
120 MONTGOMERY STREET, SUITE 2200
SAN FRANCISCO, CA
ek@a-klaw.com

MICHAEL P. ALCANTAR
ALCANTAR & KAHL, LLP
120 MONTGOMERY STREET, SUITE 2200
SAN FRANCISCO, CA
mpa@a-klaw.com

SEEMA SRINIVASAN
ALCANTAR & KAHL, LLP
120 MONTGOMERY STREET, SUITE 2200
SAN FRANCISCO, CA
sls@a-klaw.com

WILLIAM H. CHEN
CONSTELLATION NEW ENERGY, INC.
ONE MARKET STREET
SAN FRANCISCO, CA
bill.chen@constellation.com

BRIAN K. CHERRY
PACIFIC GAS AND ELECTRIC COMPANY
77 BEALE STREET, B10C
SAN FRANCISCO, CA
bk7@pge.com

EDWARD G POOLE
ANDERSON DONOVAN & POOLE
601 CALIFORNIA STREET SUITE 1300
SAN FRANCISCO, CA
epoole@adplaw.com

ANN G. GRIMALDI
MCKENNA LONG & ALDRIDGE LLP
101 CALIFORNIA STREET, 41ST FLOOR
SAN FRANCISCO, CA
agrimaldi@mckennalong.com

BRIAN T. CRAGG
GOODIN, MACBRIDE, SQUERI, RITCHIE &
DAY
505 SANSOME STREET, SUITE 900
SAN FRANCISCO, CA
bcragg@goodinmacbride.com

JAMES D. SQUERI
GOODIN MACBRIDE SQUERI RITCHIE & DAY
LLP
505 SANSOME STREET, STE 900
SAN FRANCISCO, CA
jsqueri@gmssr.com

JEANNE B. ARMSTRONG
GOODIN MACBRIDE SQUERI RITCHIE & DAY
LLP
505 SANSOME STREET, SUITE 900
SAN FRANCISCO, CA
jarmstrong@gmssr.com

KAREN BOWEN
WINSTON & STRAWN LLP
101 CALIFORNIA STREET
SAN FRANCISCO, CA
kbowen@winston.com

LISA A. COTTLE
WINSTON & STRAWN LLP
101 CALIFORNIA STREET, 39TH FLOOR
SAN FRANCISCO, CA
lcottle@winston.com

SEAN P. BEATTY
COOPER, WHITE & COOPER, LLP
201 CALIFORNIA ST., 17TH FLOOR
SAN FRANCISCO, CA
sbeatty@cwclaw.com

JOSEPH M. KARP
WINSTON & STRAWN LLP
101 CALIFORNIA STREET
SAN FRANCISCO, CA
jkarp@winston.com

JEFFREY P. GRAY
DAVIS WRIGHT TREMAINE, LLP
505 MONTGOMERY STREET, SUITE 800
SAN FRANCISCO, CA
jeffgray@dwt.com

CHRISTOPHER J. WARNER
PACIFIC GAS AND ELECTRIC COMPANY
77 BEALE STREET, PO BOX 7442
SAN FRANCISCO, CA
cjw5@pge.com

SARA STECK MYERS
122 28TH AVENUE
SAN FRANCISCO, CA
ssmyers@att.net

LARS KVALE
CENTER FOR RESOURCE SOLUTIONS
PO BOX 39512
SAN FRANCISCO, CA
lars@resource-solutions.org

ANDREA WELLER
STRATEGIC ENERGY
3130 D BALFOUR RD., SUITE 290
BRENTWOOD, CA
aweller@sel.com

JENNIFER CHAMBERLIN
STRATEGIC ENERGY, LLC
2633 WELLINGTON CT.
CLYDE, CA
jchamberlin@strategicenergy.com

KERRY HATTEVIK
MIRANT CORPORATION
696 WEST 10TH STREET
PITTSBURG, CA
kerry.hattevik@mirant.com

AVIS KOWALEWSKI
CALPINE CORPORATION
3875 HOPYARD ROAD, SUITE 345
PLEASANTON, CA
kowalewskia@calpine.com

WILLIAM H. BOOTH
LAW OFFICES OF WILLIAM H. BOOTH
1500 NEWELL AVENUE, 5TH FLOOR
WALNUT CREEK, CA
wbooth@booth-law.com

J. ANDREW HOERNER
REDEFINING PROGRESS
1904 FRANKLIN STREET
OAKLAND, CA
hoerner@redefiningprogress.org

JANILL RICHARDS
CALIFORNIA ATTORNEY GENERAL'S OFFICE
1515 CLAY STREET, 20TH FLOOR
OAKLAND, CA
janill.richards@doj.ca.gov

CLIFF CHEN
UNION OF CONCERNED SCIENTIST
2397 SHATTUCK AVENUE, STE 203
BERKELEY, CA
cchen@ucsusa.org

GREGG MORRIS
GREEN POWER INSTITUTE
2039 SHATTUCK AVENUE, STE 402
BERKELEY, CA
gmmorris@emf.net

JOHN GALLOWAY
UNION OF CONCERNED SCIENTISTS
2397 SHATTUCK AVENUE, SUITE 203
BERKELEY, CA
jgalloway@ucsusa.org

R. THOMAS BEACH
CROSSBORDER ENERGY
2560 NINTH STREET, SUITE 213A
BERKELEY, CA
tomb@crossborderenergy.com

BARRY F. MCCARTHY
MCCARTHY & BERLIN, LLP
100 PARK CENTER PLAZA, SUITE 501
SAN JOSE, CA
bmcc@mccarthyllaw.com

C. SUSIE BERLIN
MC CARTHY & BERLIN, LLP
100 PARK CENTER PLAZA, SUITE 501
SAN JOSE, CA
sberlin@mccarthyllaw.com

MIKE LAMOND
ALPINE NATURAL GAS OPERATING CO. #1
LLC
PO BOX 550
VALLEY SPRINGS, CA
anginc@goldrush.com

JOY A. WARREN
MODESTO IRRIGATION DISTRICT
1231 11TH STREET
MODESTO, CA
joyw@mid.org

BALDASSARO DI CAPO, ESQ.
CALIFORNIA ISO
151 BLUE RAVINE ROAD
FOLSOM, CA
bdicapo@caiso.com

JOHN JENSEN
MOUNTAIN UTILITIES
PO BOX 205
KIRKWOOD, CA
jjensen@kirkwood.com

MARY LYNCH
CONSTELLATION ENERGY COMMODITIES
GROUP
2377 GOLD MEDAL WAY
GOLD RIVER, CA
mary.lynych@constellation.com

LEONARD DEVANNA
CLEAN ENERGY SYSTEMS, INC.
11330 SUNCO DRIVE, SUITE A
RANCHO CORDOVA, CA
lrdevanna-rf@cleanenergysystems.com

ANDREW BROWN
ELLISON, SCHNEIDER & HARRIS, LLP
2015 H STREET
SACRAMENTO, CA
abb@eslawfirm.com

BRUCE MCLAUGHLIN
BRAUN & BLAISING, P.C.
915 L STREET, SUITE 1420
SACRAMENTO, CA
mclaughlin@braunlegal.com

GREGGORY L. WHEATLAND
ELLISON, SCHNEIDER & HARRIS, LLP
2015 H STREET
SACRAMENTO, CA
glw@eslawfirm.com

JANE E. LUCKHARDT
DOWNEY BRAND LLP
555 CAPITOL MALL, 10TH FLOOR
SACRAMENTO, CA
jluckhardt@downeybrand.com

JEFFERY D. HARRIS
ELLISON, SCHNEIDER & HARRIS LLP
2015 H STREET
SACRAMENTO, CA
jdh@eslawfirm.com

VIRGIL WELCH
ENVIRONMENTAL DEFENSE
1107 9TH STREET, SUITE 540
SACRAMENTO, CA
vwelch@environmentaldefense.org

WILLIAM W. WESTERFIELD, 111
ELLISON, SCHNEIDER & HARRIS L.L.P.
2015 H STREET
SACRAMENTO, CA
www@eslawfirm.com

DOWNEY BRAND
JANE E. LUCKHARDT
555 CAPITOL MALL, 10TH FLOOR
SACRAMENTO, CA

RAYMOND J. CZAHAR, C.P.A.
WEST COAST GAS COMPANY
9203 BEATTY DRIVE
SACRAMENTO, CA
westgas@aol.com

STEVEN M. COHN
SACRAMENTO MUNICIPAL UTILITY DISTRICT
PO BOX 15830
SACRAMENTO, CA
scohn@smud.org

ANN L. TROWBRIDGE
DAY CARTER & MURPHY, LLP
3620 AMERICAN RIVER DRIVE, SUITE 205
SACRAMENTO, CA
atrowbridge@daycartermurphy.com

DAN SILVERIA
SURPRISE VALLEY ELECTRIC COOPERATIVE
PO BOX 691
ALTURAS, CA
dansvec@hdo.net

JESSICA NELSON
PLUMAS-SIERRA RURAL ELECTRIC CO-OP
73233 STATE ROUTE 70, STE A
PORTOLA, CA
notice@psrec.coop

DONALD BROOKHYSER
ALCANTAR & KAHL
1300 SW FIFTH AVE., SUITE 1750
PORTLAND, OR
deb@a-klaw.com

CYNTHIA SCHULTZ
PACIFIC POWER AND LIGHT COMPANY
825 N.E. MULTNOMAH
PORTLAND, OR
cynthia.schultz@pacificcorp.com

KYLE L. DAVIS
PACIFICORP
825 NE MULTNOMAH,
PORTLAND, OR
kyle.l.davis@pacificcorp.com

RYAN FLYNN
PACIFICORP
825 NE MULTNOMAH STREET
PORTLAND, OR
ryan.flynn@pacificcorp.com

SHAY LABRAY
PACIFICORP
825 NE MULTNOMAH, SUITE 2000
PORTLAND, OR
shayleah.labray@pacificcorp.com

TARA KNOX
AVISTA CORPORATION
PO BOX 3727
SPOKANE, WA

IAN CARTER
INTERNATIONAL EMISSIONS TRADING ASSN.
350 SPARKS STREET, STE. 809
OTTAWA, ON
carter@ieta.org

JASON DUBCHAK
NISKA GAS STORAGE
1200 855 2ND STREET, S.W.
CALGARY, AB
jason.dubchak@niskags.com

BRIAN M. JONES
M. J. BRADLEY & ASSOCIATES, INC.
47 JUNCTION SQUARE DRIVE
CONCORD, MA
bjones@mjbbradley.com

KENNETH A. COLBURN
SYMBIOTIC STRATEGIES, LLC
26 WINTON ROAD
MEREDITH, NH
kcolburn@symbioticstrategies.com

RICHARD COWART
REGULATORY ASSISTANCE PROJECT
50 STATE STREET, SUITE 3
MONTPELIER, VT
rapcowart@aol.com

KATHRYN WIG
NRG ENERGY, INC.
211 CARNEGIE CENTER
PRINCETON, NY
Kathryn.Wig@nrgenergy.com

SAKIS ASTERIADIS
APX INC
1270 FIFTH AVE., SUITE 15R
NEW YORK, NY
sasteriadis@apx.com

GEORGE HOPLEY
BARCLAYS CAPITAL
200 PARK AVENUE
NEW YORK, NY
george.hopley@barcap.com

ADAM J. KATZ
MCDERMOTT WILL & EMERY LLP
600 13TH STREET, NW.
WASHINGTON, DC
ajkatz@mwe.com

ELIZABETH ZELLJADT
1725 I STREET, N.W. SUITE 300
WASHINGTON, DC
ez@pointcarbon.com

DALLAS BURTRAW
1616 P STREET, NW
WASHINGTON, DC
burtraw@rff.org

VERONIQUE BUGNION
POINT CARBON
205 SEVERN RIVER RD
SEVERNA PARK, MD
vb@pointcarbon.com

KYLE D. BOUDREAU
FPL GROUP
700 UNIVERSE BLVD., JES/JB
JUNO BEACH, FL
kyle_boudreaux@fpl.com

ANDREW BRADFORD
FELLON-MCCORD & ASSOCIATES
9960 CORPORATE CAMPUS DRIVE
LOUISVILLE, KY
andrew.bradford@constellation.com

GARY BARCH
FELLON-MCCORD & ASSOCIATES, INC.
9960 CORPORATE CAMPUS DRIVE
LOUISVILLE, KY
gbarch@knowledgeinenergy.com

RALPH E. DENNIS
FELLON-MCCORD & ASSOCIATES
9960 CORPORATE CAMPUS DRIVE, STE 2000
LOUISVILLE, KY
ralph.dennis@constellation.com

SAMARA MINDEL
FELLON-MCCORD & ASSOCIATES
9960 CORPORATE CAMPUS DRIVE, SUITE
2000
LOUISVILLE, KY
samara.mindel@constellation.com

BARRY RABE
1427 ROSS STREET
PLYMOUTH, MI
brabe@umich.edu

CATHY S. WOOLLUMS
MIDAMERICAN ENERGY HOLDINGS
COMPANY
106 EAST SECOND STREET
DAVENPORT, IA
cswoolums@midamerican.com

BRIAN POTTS
ONE SOUTH PINCKNEY STREET
MADISON, WI
bhpotts@michaelbest.com

JAMES W. KEATING
BP AMERICA, INC.
150 W. WARRENVILLE RD.
NAPERVILLE, IL
james.keating@bp.com

JAMES ROSS
RCS, INC.
500 CHESTERFIELD CENTER, SUITE 320
CHESTERFIELD, MO
jimross@r-c-s-inc.com

TRENT A. CARLSON
RELIANT ENERGY
1000 MAIN STREET
HOUSTON, TX
tcarlson@reliant.com

GARY HINNERS
RELIANT ENERGY, INC.
PO BOX 148
HOUSTON, TX
ghinners@reliant.com

JULIE L. MARTIN
NORTH AMERICA GAS AND POWER
501 WESTLAKE PARK BLVD.
HOUSTON, TX
julie.martin@bp.com

ED CHIANG
ELEMENT MARKETS, LLC
ONE SUGAR CREEK CENTER BLVD., SUITE
250
SUGAR LAND, TX
echiang@elementmarkets.com

NADAV ENBAR
ENERGY INSIGHTS
1750 14TH STREET, SUITE 200
BOULDER, CO
nenbar@energy-insights.com

NICHOLAS LENSSEN
ENERGY INSIGHTS
1750 14TH STREET, SUITE 200
BOULDER, CO
nlenssen@energy-insights.com

STEVEN MICHEL
WESTERN RESOURCE ADVOCATES
2260 BASELINE RD., STE. 200
BOULDER, CO
smichel@westernresources.org

ELIZABETH BAKER
SUMMIT BLUE CONSULTING
1722 14TH STREET, SUITE 230
BOULDER, CO
bbaker@summitblue.com

KEVIN J. SIMONSEN
ENERGY MANAGEMENT SERVICES
646 EAST THIRD AVENUE
DURANGO, CO
kjsimonsen@ems-ca.com

PHILIP D. LUSK
WESTERN ELECTRICITY COORDINATING
COUNCIL
615 ARAPEEN DRIVE, SUITE 210
SALT LAKE CITY, UT
plusk@wecc.biz

SANDRA ELY
NEW MEXICO ENVIRONMENT DEPARTMENT
1190 ST FRANCIS DRIVE
SANTA FE, NM
Sandra.ely@state.nm.us

BRIAN MCQUOWN
RELIANT ENERGY
7251 AMIGO ST., SUITE 120
LAS VEGAS, NV
bmcquown@reliant.com

DOUGLAS BROOKS
SIERRA PACIFIC POWER COMPANY
6226 WEST SAHARA AVENUE
LAS VEGAS, NV
dbrooks@nevpc.com

BILL SCHRAND
SOUTHWEST GAS CORPORATON
PO BOX 98510
LAS VEGAS, NV
bill.schrand@swgas.com

JJ PRUCNAL
SOUTHWEST GAS CORPORATION
PO BOX 98510
LAS VEGAS, NV
jj.prucnal@swgas.com

MERIDITH J. STRAND
SOUTHWEST GAS CORPORATION
PO BOX 98510
LAS VEGAS, NV
meridith.strand@swgas.com

CYNTHIA MITCHELL
ENERGY ECONOMICS, INC.
530 COLGATE COURT
RENO, NV
ckmitchell1@sbcglobal.net

CHRISTOPHER A. HILEN
SIERRA PACIFIC POWER COMPANY
6100 NEIL ROAD
RENO, NV
chilen@sppc.com

ELENA MELLO
SIERRA PACIFIC POWER COMPANY
6100 NEIL ROAD
RENO, NV
emello@sppc.com

TREVOR DILLARD
SIERRA PACIFIC POWER COMPANY
6100 NEIL ROAD
RENO, NV
tdillard@sierrapacific.com

FRANK LUCHETTI
NEVADA DIV. OF ENVIRONMENTAL
PROTECTION
901 S. STEWART ST., SUITE 4001
CARSON CITY, NV
fluchetti@ndep.nv.gov

LEILANI JOHNSON KOWAL
LOS ANGELES DEPT. OF WATER AND
POWER
111 N. HOPE STREET, ROOM 1050
LOS ANGELES, CA
leilani.johnson@ladwp.com

RANDY S. HOWARD
LOS ANGELES DEPT. OF WATER AND
POWER
111 NORTH HOPE STREET, ROOM 921
LOS ANGELES, CA
randy.howard@ladwp.com

ROBERT L. PETTINATO
LOS ANGELES DEPARTMENT OF WATER &
POWER
111 NORTH HOPE STREET, SUITE 1150
LOS ANGELES, CA
robert.pettinato@ladwp.com

HUGH YAO
SOUTHERN CALIFORNIA GAS COMPANY
555 W. 5TH ST, GT22G2
LOS ANGELES, CA
hyao@semprautilities.com

RASHA PRINCE
SAN DIEGO GAS & ELECTRIC
555 WEST 5TH STREET, GT14D6
LOS ANGELES, CA
rprince@semprautilities.com

RANDALL W. KEEN
MANATT PHELPS & PHILLIPS, LLP
11355 WEST OLYMPIC BLVD.
LOS ANGELES, CA
rkeen@manatt.com

S. NANCY WHANG
MANATT, PHELPS & PHILLIPS, LLP
11355 WEST OLYMPIC BLVD.
LOS ANGELES, CA
nwhang@manatt.com

MICHAEL MCCORMICK
CALIFORNIA CLIMATE ACTION REGISTRY
515 S. FLOWER ST. SUITE 1640
LOS ANGELES, CA
mike@climateregistry.org

HARVEY EDER
PUBLIC SOLAR POWER COALITION
1218 12TH ST., 25
SANTA MONICA, CA
harveyederpspc.org@hotmail.com

STEVE ENDO
DEPARTMENT OF WATER & POWER
150 S LOS ROBLES AVE., STE. 200
PASADENA, CA
sendo@ci.pasadena.ca.us

STEVEN G. LINS
CITY OF GLENDALE
613 EAST BROADWAY, SUITE 220
GLENDALE, CA
slins@ci.glendale.ca.us

TOM HAMILTON
ENERGY CONCIERGE SERVICES
321 MESA LILA RD
GLENDALE, CA
THAMILTON5@CHARTER.NET

BRUNO JEIDER
BURBANK WATER & POWER
164 WEST MAGNOLIA BLVD.
BURBANK, CA
bjeider@ci.burbank.ca.us

ROGER PELOTE
WILLIAMS POWER COMPANY
12736 CALIFA STREET
VALLEY VILLAGE, CA
roger.pelote@williams.com

CASE ADMINISTRATION
SOUTHERN CALIFORNIA EDISON COMPANY
2244 WALNUT GROVE AVE., RM. 370
ROSEMEAD, CA
case.admin@sce.com

CATHY KARLSTAD
SOUTHERN CALIFORNIA EDISON COMPANY
2244 WALNUT GROVE AVE.
ROSEMEAD, CA
cathy.karlstad@sce.com

TIM HEMIG
NRG ENERGY, INC.
1819 ASTON AVENUE, SUITE 105
CARLSBAD, CA
tim.hemig@nrgenergy.com

BARRY LOVELL
15708 POMERADO RD., SUITE 203
POWAY, CA
bjl@bry.com

AIMEE M. SMITH
SEMPRA ENERGY
101 ASH STREET HQ13
SAN DIEGO, CA
amsmith@sempra.com

ALDYN HOEKSTRA
PACE GLOBAL ENERGY SERVICES
420 WEST BROADWAY, 4TH FLOOR
SAN DIEGO, CA
aldyn.hoekstra@paceglobal.com

DONALD C. LIDDELL, P.C.
DOUGLASS & LIDDELL
2928 2ND AVENUE
SAN DIEGO, CA
liddell@energyattorney.com

YVONNE GROSS
SEMPRA ENERGY
101 ASH STREET
SAN DIEGO, CA
ygross@sempraglobal.com

JOHN LAUN
APOGEE INTERACTIVE, INC.
1220 ROSECRANS ST., SUITE 308
SAN DIEGO, CA
jlaun@apogee.net

SCOTT J. ANDERS
UNIVERSITY OF SAN DIEGO SCHOOL OF
LAW
5998 ALCALA PARK
SAN DIEGO, CA
scottanders@sandiego.edu

ANDREW MCALLISTER
CALIFORNIA CENTER FOR SUSTAINABLE
ENERGY
8690 BALBOA AVE., SUITE 100
SAN DIEGO, CA
andrew.mcallister@energycenter.org

JACK BURKE
CALIFORNIA CENTER FOR SUSTAINABLE
ENERGY
8690 BALBOA AVE., SUITE 100
SAN DIEGO, CA
jack.burke@energycenter.org

JENNIFER PORTER
CALIFORNIA CENTER FOR SUSTAINABLE
ENERGY
8690 BALBOA AVENUE, SUITE 100
SAN DIEGO, CA
jennifer.porter@energycenter.org

SEPHRA A. NINOW
CALIFORNIA CENTER FOR SUSTAINABLE
ENERGY
8690 BALBOA AVENUE, SUITE 100
SAN DIEGO, CA
sephra.ninow@energycenter.org

JOHN W. LESLIE
LUCE, FORWARD, HAMILTON & SCRIPPS, LLP
11988 EL CAMINO REAL, SUITE 200
SAN DIEGO, CA
jleslie@luce.com

ORLANDO B. FOOTE, III
HORTON, KNOX, CARTER & FOOTE
895 BROADWAY, SUITE 101
EL CENTRO, CA
ofoote@hkcf-law.com

ELSTON K. GRUBAUGH
IMPERIAL IRRIGATION DISTRICT
333 EAST BARIONI BLVD.
IMPERIAL, CA
ekgrubaugh@iid.com

MWIRIGI IMUNGI
15615 ALTON PARKWAY
IRVINE, CA
Mlimgi@energycoalition.org

JAN PEPPER
CLEAN POWER MARKETS, INC.
418 BENVENUE AVENUE
LOS ALTOS, CA
pepper@cleanpowermarkets.com

GLORIA D. SMITH
ADAMS, BROADWELL, JOSEPH & CARDOZO
601 GATEWAY BLVD., SUITE 1000
SOUTH SAN FRANCISCO, CA
gsmith@adamsbroadwell.com

MARC D. JOSEPH
ADAMS BRADWELL JOSEPH & CARDOZO
601 GATEWAY BLVD. STE 1000
SOUTH SAN FRANCISCO, CA
mdjoseph@adamsbroadwell.com

DIANE I. FELLMAN
LAW OFFICES OF DIANE I. FELLMAN
234 VAN NESS AVENUE
SAN FRANCISCO, CA
diane_fellman@fpl.com

HAYLEY GOODSON
THE UTILITY REFORM NETWORK
711 VAN NESS AVENUE, SUITE 350
SAN FRANCISCO, CA
hayley@turn.org

MATTHEW FREEDMAN
THE UTILITY REFORM NETWORK
711 VAN NESS AVENUE, SUITE 350
SAN FRANCISCO, CA
freedman@turn.org

MICHEL FLORIO
711 VAN NESS AVE., STE. 350
SAN FRANCISCO, CA
mflorio@turn.org

DAN ADLER
CALIFORNIA CLEAN ENERGY FUND
5 THIRD STREET, SUITE 1125
SAN FRANCISCO, CA
Dan.adler@calcef.org

MICHAEL A. HYAMS
SAN FRANCISCO PUBLIC UTILITIES COMM
1155 MARKET ST., 4TH FLOOR
SAN FRANCISCO, CA
mhyams@sfwater.org

NORMAN J. FURUTA
FEDERAL EXECUTIVE AGENCIES
1455 MARKET ST., SUITE 1744
SAN FRANCISCO, CA
norman.furuta@navy.mil

ANNABELLE MALINS
BRITISH CONSULATE-GENERAL
ONE SANSOME STREET, SUITE 850
SAN FRANCISCO, CA
annabelle.malins@fco.gov.uk

DEVRA WANG
NATURAL RESOURCES DEFENSE COUNCIL
111 SUTTER STREET, 20TH FLOOR
SAN FRANCISCO, CA
dwang@nrdc.org

ERIC WANLESS
NATURAL RESOURCES DEFENSE COUNCIL
111 SUTTER STREET, 20TH FLOOR
SAN FRANCISCO, CA
ewanless@nrdc.org

KAREN TERRANOVA
ALCANTAR & KAHL, LLP
120 MONTGOMERY STREET, STE 2200
SAN FRANCISCO, CA
filings@a-klaw.com

NORA SHERIFF
ALCANTAR & KAHL, LLP
120 MONTGOMERY STREET, SUITE 2200
SAN FRANCISCO, CA
nes@a-klaw.com

OLOF BYSTROM
CAMBRIDGE ENERGY RESEARCH
ASSOCIATES
555 CALIFORNIA STREET, 3RD FLOOR
SAN FRANCISCO, CA
obystrom@cera.com

SHERYL CARTER
NATURAL RESOURCES DEFENSE COUNCIL
111 SUTTER STREET, 20TH FLOOR
SAN FRANCISCO, CA
scarter@nrdc.org

CARMEN E. BASKETTE
594 HOWARD ST., SUITE 400
SAN FRANCISCO, CA
cbaskette@enernoc.com

COLIN PETHERAM
SBC CALIFORNIA
140 NEW MONTGOMERY ST., SUITE 1325
SAN FRANCISCO, CA
colin.petheram@att.com

DAVID R MILLER
TETRA TECH EM INC.
135 MAIN STREET, SUITE 1800
SAN FRANCISCO, CA
dave.millar@ttemi.com

DEBORAH BROCKETT
NAVIGANT CONSULTING, INC.
ONE MARKET STREET
SAN FRANCISCO, CA
dbrockett@navigantconsulting.com

KEVIN FOX
WILSON SONSINI GOODRICH & ROSATI
ONE MARKET STREET, SPEAR TOWER, 3300
SAN FRANCISCO, CA
kfox@wsgr.com

KHURSHID KHOJA
THELEN REID BROWN RAYSMAN & STEINER
101 SECOND STREET, SUITE 1800
SAN FRANCISCO, CA
kkhoja@thelenreid.com

STEPHANIE LA SHAWN
PACIFIC GAS AND ELECTRIC COMPANY
77 BEALE STREET, RM. 996B
SAN FRANCISCO, CA
S1L7@pge.com

CALIFORNIA ENERGY MARKETS
517-B POTRERO AVENUE
SAN FRANCISCO, CA
cem@newsdata.com

HOWARD V. GOLUB
NIXON PEABODY LLP
2 EMBARCADERO CENTER, STE. 2700
SAN FRANCISCO, CA
hgolub@nixonpeabody.com

JANINE L. SCANCARELLI
FOLGER, LEVIN & KAHN, LLP
275 BATTERY STREET, 23RD FLOOR
SAN FRANCISCO, CA
jscancarelli@flk.com

JOSEPH F. WIEDMAN
GOODIN MACBRIDE SQUERI DAY & LAMPREY
LLP
505 SANSOME STREET, SUITE 900
SAN FRANCISCO, CA
jwiedman@goodinmacbride.com

MARTIN A. MATTES
NOSSAMAN, GUTHNER, KNOX & ELLIOTT,
LLP
50 CALIFORNIA STREET, 34TH FLOOR
SAN FRANCISCO, CA
mmattes@nossaman.com

JEN MCGRAW
CENTER FOR NEIGHBORHOOD
TECHNOLOGY
PO BOX 14322
SAN FRANCISCO, CA
jen@cnt.org

LISA WEINZIMER
PLATTS
695 NINTH AVENUE, NO. 2
SAN FRANCISCO, CA
lisa_weinzimer@platts.com

STEVEN MOSS
SAN FRANCISCO COMMUNITY POWER COOP
2325 3RD STREET, SUITE 344
SAN FRANCISCO, CA
steven@moss.net

SHAUN ELLIS
2183 UNION STREET
SAN FRANCISCO, CA
sellis@fypower.org

ARNO HARRIS
RECURRENT ENERGY, INC.
220 HALLECK ST., SUITE 220
SAN FRANCISCO, CA
arno@recurrentenergy.com

DAREN CHAN
PO BOX 770000, MAIL CODE B9A
SAN FRANCISCO, CA
d1ct@pge.com

ED LUCHA
PACIFIC GAS AND ELECTRIC COMPANY
PO BOX 770000, MAIL CODE: B9A
SAN FRANCISCO, CA
ell5@pge.com

GRACE LIVINGSTON-NUNLEY
PACIFIC GAS AND ELECTRIC COMPANY
PO BOX 770000 MAIL CODE B9A
SAN FRANCISCO, CA
gx12@pge.com

JASMIN ANSAR
PG&E
PO BOX 770000
SAN FRANCISCO, CA
jxa2@pge.com

JONATHAN FORRESTER
PG&E
PO BOX 770000
SAN FRANCISCO, CA
JDF1@PGE.COM

SEBASTIEN CSAPO
PACIFIC GAS AND ELECTRIC COMPANY
PO BOX 770000
SAN FRANCISCO, CA
sscb@pge.com

SOUMYA SASTRY
PACIFIC GAS AND ELECTRIC COMPANY
PO BOX 770000
SAN FRANCISCO, CA
svs6@pge.com

VALERIE J. WINN
PACIFIC GAS AND ELECTRIC COMPANY
PO BOX 770000, B9A
SAN FRANCISCO, CA
vjw3@pge.com

FARROKH ALBUYEH
OPEN ACCESS TECHNOLOGY
INTERNATIONAL INC
1875 SOUTH GRANT STREET
SAN MATEO, CA
farrokh.albuyeh@oati.net

GREG BLUE
140 MOUNTAIN PKWY.
CLAYTON, CA
greg.blue@sbcglobal.net

DEAN R. TIBBS
ADVANCED ENERGY STRATEGIES, INC.
1390 WILLOW PASS ROAD, SUITE 610
CONCORD, CA
dtibbs@aes4u.com

JEFFREY L. HAHN
COVANTA ENERGY CORPORATION
876 MT. VIEW DRIVE
LAFAYETTE, CA
jhahn@covantaenergy.com

ANDREW J. VAN HORN
VAN HORN CONSULTING
12 LIND COURT
ORINDA, CA
andy.vanhorn@vhcenergy.com

SUE KATELEY
CALIFORNIA SOLAR ENERGY INDUSTRIES
ASSN
PO BOX 782
RIO VISTA, CA
info@calseia.org

JOSEPH M. PAUL
DYNEGY, INC.
2420 CAMINO RAMON, SUITE 215
SAN RAMON, CA
Joe.paul@dynegy.com

MONICA A. SCHWEBS, ESQ.
BINGHAM MCCUTCHEN LLP
1333 N. CALIFORNIA BLVD.
WALNUT CREEK, CA
monica.schwebs@bingham.com

JOSEPH HENRI
31 MIRAMONTE ROAD
WALNUT CREEK, CA
josephhenri@hotmail.com

PATRICIA THOMPSON
SUMMIT BLUE CONSULTING
2920 CAMINO DIABLO, SUITE 210
WALNUT CREEK, CA
pthompson@summitblue.com

WILLIAM F. DIETRICH
DIETRICH LAW
2977 YGNACIO VALLEY ROAD, 613
WALNUT CREEK, CA
dietrichlaw2@earthlink.net

BETTY SETO
KEMA, INC.
492 NINTH STREET, SUITE 220
OAKLAND, CA
Betty.Seto@kema.com

GERALD L. LAHR
ABAG POWER
101 EIGHTH STREET
OAKLAND, CA
JerryL@abag.ca.gov

JODY S. LONDON
JODY LONDON CONSULTING
PO BOX 3629
OAKLAND, CA
jody_london_consulting@earthlink.net

STEVEN SCHILLER
SCHILLER CONSULTING, INC.
111 HILLSIDE AVENUE
PIEDMONT, CA
steve@schiller.com

MRW & ASSOCIATES, INC.
1814 FRANKLIN STREET, SUITE 720
OAKLAND, CA
mrw@mrwassoc.com

REED V. SCHMIDT
BARTLE WELLS ASSOCIATES
1889 ALCATRAZ AVENUE
BERKELEY, CA
rschmidt@bartlewells.com

ADAM BRIONES
THE GREENLINING INSTITUTE
1918 UNIVERSITY AVENUE, 2ND FLOOR
BERKELEY, CA
adamb@greenlining.org

CLYDE MURLEY
CONSULTANT
600 SAN CARLOS AVENUE
ALBANY, CA
clyde.murley@comcast.net

BRENDA LEMAY
HORIZON WIND ENERGY
1600 SHATTUCK, SUITE 222
BERKELEY, CA
brenda.lemay@horizonwind.com

CARLA PETERMAN
UCEI
2547 CHANNING WAY
BERKELEY, CA
carla.peterman@gmail.com

EDWARD VINE
LAWRENCE BERKELEY NATIONAL
LABORATORY
BUILDING 90-4000
BERKELEY, CA
elvine@lbl.gov

RYAN WISER
BERKELEY LAB
ONE CYCLOTRON ROAD
BERKELEY, CA
rhwiser@lbl.gov

CHRIS MARNAY
1 CYCLOTRON RD MS 90R4000
BERKELEY, CA
C_Marnay@1b1.gov

PHILLIP J. MULLER
SCD ENERGY SOLUTIONS
436 NOVA ALBION WAY
SAN RAFAEL, CA
philm@scdenergy.com

RITA NORTON
RITA NORTON AND ASSOCIATES, LLC
18700 BLYTHSWOOD DRIVE,
LOS GATOS, CA
rita@ritanortonconsulting.com

CARL PECHMAN
POWER ECONOMICS
901 CENTER STREET
SANTA CRUZ, CA
cpechman@powereconomics.com

KENNY SWAIN
POWER ECONOMICS
901 CENTER STREET
SANTA CRUZ, CA
kswain@powereconomics.com

MAHLON ALDRIDGE
ECOLOGY ACTION
PO BOX 1188
SANTA CRUZ, CA
emahlon@ecoact.org

RICHARD SMITH
MODESTO IRRIGATION DISTRICT
1231 11TH STREET
MODESTO, CA
richards@mid.org

CHRISTOPHER J. MAYER
MODESTO IRRIGATION DISTRICT
1231 11TH STREET
MODESTO, CA
chrism@mid.org

ROGER VAN HOY
MODESTO IRRIGATION DISTRICT
1231 11TH STREET
MODESTO, CA
rogerv@mid.org

BARBARA R. BARKOVICH
BARKOVICH & YAP, INC.
44810 ROSEWOOD TERRACE
MENDOCINO, CA
brbarkovich@earthlink.net

JOHN R. REDDING
ARCTURUS ENERGY CONSULTING
44810 ROSEWOOD TERRACE
MENDOCINO, CA
johnrredding@earthlink.net

CLARK BERNIER
RLW ANALYTICS
1055 BROADWAY, SUITE G
SONOMA, CA
clark.bernier@rlw.com

RICHARD MCCANN, PH.D
M. CUBED
2655 PORTAGE BAY, SUITE 3
DAVIS, CA
rmccann@umich.edu

CAROLYN M. KEHREIN
ENERGY MANAGEMENT SERVICES
1505 DUNLAP COURT
DIXON, CA
cmkehrein@ems-ca.com

CALIFORNIA ISO
151 BLUE RAVINE ROAD
FOLSOM, CA
e-recipient@caiso.com

GRANT ROSENBLUM, ESQ.
CALIFORNIA ISO
151 BLUE RAVINE ROAD
FOLSOM, CA
grosenblum@caiso.com

KAREN EDSON
151 BLUE RAVINE ROAD
FOLSOM, CA

ROBIN SMUTNY-JONES
CALIFORNIA ISO
151 BLUE RAVINE ROAD
FOLSOM, CA
rsmutny-jones@caiso.com

SAEED FARROKHPAY
FEDERAL ENERGY REGULATORY
COMMISSION
110 BLUE RAVINE RD., SUITE 107
FOLSOM, CA
saeed.farrokhpay@ferc.gov

DAVID BRANCHCOMB
BRANCHCOMB ASSOCIATES, LLC
9360 OAKTREE LANE
ORANGEVILLE, CA
david@branchcomb.com

KIRBY DUSEL
NAVIGANT CONSULTING, INC.
3100 ZINFANDEL DRIVE, SUITE 600
RANCHO CORDOVA, CA
kdusel@navigantconsulting.com

LAURIE PARK
NAVIGANT CONSULTING, INC.
3100 ZINFANDEL DRIVE, SUITE 600
RANCHO CORDOVA, CA
lpark@navigantconsulting.com

SCOTT TOMASHEFSKY
NORTHERN CALIFORNIA POWER AGENCY
180 CIRBY WAY
ROSEVILLE, CA
scott.tomashefsky@ncpa.com

ELLEN WOLFE
RESERO CONSULTING
9289 SHADOW BROOK PL.
GRANITE BAY, CA
ewolfe@resero.com

AUDRA HARTMANN
980 NINTH STREET, SUITE 2130
SACRAMENTO, CA
Audra.Hartmann@Dynergy.com

CURT BARRY
717 K STREET, SUITE 503
SACRAMENTO, CA
curt.barry@iwpnews.com

DAVID L. MODISETTE
CALIFORNIA ELECTRIC TRANSP. COALITION
1015 K STREET, SUITE 200
SACRAMENTO, CA
dave@ppallc.com

RACHEL MCMAHON
CEERT
1100 11TH STREET, SUITE 311
SACRAMENTO, CA
rachel@ceert.org

STEVEN KELLY
INDEPENDENT ENERGY PRODUCERS ASSN
1215 K STREET, SUITE 900
SACRAMENTO, CA
steven@iepa.com

EDWARD J. TIEDEMANN
KRONICK, MOSKOVITZ, TIEDEMANN &
GIRARD
400 CAPITOL MALL, 27TH FLOOR
SACRAMENTO, CA
etiedemann@kmtg.com

LYNN HAUG
ELLISON, SCHNEIDER & HARRIS, LLP
2015 H STREET
SACRAMENTO, CA
lmh@eslawfirm.com

OBADIAH BARTHOLOMY
SACRAMENTO MUNICIPAL UTILITY DISTRICT
6201 S. STREET
SACRAMENTO, CA
obarto@smud.org

BUD BEEBE
SACRAMENTO MUNICIPAL UTIL DIST
6201 S STREET
SACRAMENTO, CA
bbeebe@smud.org

BALWANT S. PUREWAL
DEPARTMENT OF WATER RESOURCES
3310 EL CAMINO AVE., LL-90
SACRAMENTO, CA
bpurewal@water.ca.gov

DOUGLAS MACMULLEN
CA DEPARTMENT OF WATER RESOURCES
3310 EL CAMINO AVE., ROOM 356
SACRAMENTO, CA
dmacmll@water.ca.gov

HOLLY B. CRONIN
CALIFORNIA DEPARTMENT OF WATER
RESOURCES
3310 EL CAMINO AVE., LL-90
SACRAMENTO, CA
hcronin@water.ca.gov

KAREN NORENE MILLS
CALIFORNIA FARM BUREAU FEDERATION
2300 RIVER PLAZA DRIVE
SACRAMENTO, CA
kmills@cbbf.com

KAREN LINDH
LINDH & ASSOCIATES
7909 WALERGA ROAD, NO. 112, PMB 119
ANTELOPE, CA
karen@klindh.com

DENISE HILL
4004 KRUSE WAY PLACE, SUITE 150
LAKE OSWEGO, OR
Denise_Hill@transalta.com

ANNIE STANGE
ALCANTAR & KAHL
1300 SW FIFTH AVE., SUITE 1750
PORTLAND, OR
sas@a-klaw.com

ELIZABETH WESTBY
ALCANTAR & KAHL, LLP
1300 SW FIFTH AVENUE, SUITE 1750
PORTLAND, OR
egw@a-klaw.com

ALEXIA C. KELLY
THE CLIMATE TRUST
65 SW YAMHILL STREET, SUITE 400
PORTLAND, OR
akelly@climatetrust.org

ALAN COMNES
WEST COAST POWER
3934 SE ASH STREET
PORTLAND, OR
alan.comnes@nrgenergy.com

KYLE SILON
ECOSECURITIES CONSULTING LIMITED
529 SE GRAND AVENUE
PORTLAND, OR
kyle.silon@ecosecurities.com

PHIL CARVER
OREGON DEPARTMENT OF ENERGY
625 MARION ST., NE
SALEM, OR
Philip.H.Carver@state.or.us

SAM SADLER
OREGON DEPARTMENT OF ENERGY
625 NE MARION STREET
SALEM, OR
samuel.r.sadler@state.or.us

LISA SCHWARTZ
ORGEON PUBLIC UTILITY COMMISSION
PO BOX 2148
SALEM, OR
lisa.c.schwartz@state.or.us

CLARE BREIDENICH
224 1/2 24TH AVENUE EAST
SEATTLE, WA
cbreidenich@yahoo.com

JESUS ARREDONDO
NRG ENERGY INC.
4600 CARLSBAD BLVD.
CARLSBAD, CA
jesus.arredondo@nrgenergy.com

KAREN MCDONALD
POWEREX CORPORATION
666 BURRAND STREET
VANCOUVER, BC
karen.mcdonald@powerex.com

James Loewen
CALIF PUBLIC UTILITIES COMMISSION
320 WEST 4TH STREET SUITE 500
LOS ANGELES, CA
loe@cpuc.ca.gov

Andrew Campbell
CALIF PUBLIC UTILITIES COMMISSION
505 VAN NESS AVENUE
SAN FRANCISCO, CA
agc@cpuc.ca.gov

Anne Gillette
CALIF PUBLIC UTILITIES COMMISSION
505 VAN NESS AVENUE
SAN FRANCISCO, CA
aeg@cpuc.ca.gov

Charlotte TerKeurst
CALIF PUBLIC UTILITIES COMMISSION
505 VAN NESS AVENUE
SAN FRANCISCO, CA
cft@cpuc.ca.gov

Christine S. Tam
CALIF PUBLIC UTILITIES COMMISSION
505 VAN NESS AVENUE
SAN FRANCISCO, CA
tam@cpuc.ca.gov

Donald R. Smith
CALIF PUBLIC UTILITIES COMMISSION
505 VAN NESS AVENUE
SAN FRANCISCO, CA
dsh@cpuc.ca.gov

Ed Moldavsky
CALIF PUBLIC UTILITIES COMMISSION
505 VAN NESS AVENUE
SAN FRANCISCO, CA
edm@cpuc.ca.gov

Eugene Cadenasso
CALIF PUBLIC UTILITIES COMMISSION
505 VAN NESS AVENUE
SAN FRANCISCO, CA
cpe@cpuc.ca.gov

Harvey Y. Morris
CALIF PUBLIC UTILITIES COMMISSION
505 VAN NESS AVENUE
SAN FRANCISCO, CA
hym@cpuc.ca.gov

Jaclyn Marks
CALIF PUBLIC UTILITIES COMMISSION
505 VAN NESS AVENUE
SAN FRANCISCO, CA
jm3@cpuc.ca.gov

George S. Tagnipes
CALIF PUBLIC UTILITIES COMMISSION
505 VAN NESS AVENUE
SAN FRANCISCO, CA
jst@cpuc.ca.gov

Joel T. Perlstein
CALIF PUBLIC UTILITIES COMMISSION
505 VAN NESS AVENUE
SAN FRANCISCO, CA
jtp@cpuc.ca.gov

Jonathan Lakritz
CALIF PUBLIC UTILITIES COMMISSION
505 VAN NESS AVENUE
SAN FRANCISCO, CA
jol@cpuc.ca.gov

Judith Ikle
CALIF PUBLIC UTILITIES COMMISSION
505 VAN NESS AVENUE
SAN FRANCISCO, CA
jci@cpuc.ca.gov

Julie A. Fitch
CALIF PUBLIC UTILITIES COMMISSION
505 VAN NESS AVENUE
SAN FRANCISCO, CA
jf2@cpuc.ca.gov

Kristin Ralf Douglas
CALIF PUBLIC UTILITIES COMMISSION
505 VAN NESS AVENUE
SAN FRANCISCO, CA
krd@cpuc.ca.gov

Lainie Motamedi
CALIF PUBLIC UTILITIES COMMISSION
505 VAN NESS AVENUE
SAN FRANCISCO, CA
lrm@cpuc.ca.gov

Matthew Deal
CALIF PUBLIC UTILITIES COMMISSION
505 VAN NESS AVENUE
SAN FRANCISCO, CA
mjd@cpuc.ca.gov

Meg Gottstein
CALIF PUBLIC UTILITIES COMMISSION
505 VAN NESS AVENUE
SAN FRANCISCO, CA
meg@cpuc.ca.gov

Merideth Sterkel
CALIF PUBLIC UTILITIES COMMISSION
505 VAN NESS AVENUE
SAN FRANCISCO, CA
mts@cpuc.ca.gov

Nancy Ryan
CALIF PUBLIC UTILITIES COMMISSION
505 VAN NESS AVENUE
SAN FRANCISCO, CA
ner@cpuc.ca.gov

Pamela Wellner
CALIF PUBLIC UTILITIES COMMISSION
505 VAN NESS AVENUE
SAN FRANCISCO, CA
pw1@cpuc.ca.gov

Paul S. Phillips
CALIF PUBLIC UTILITIES COMMISSION
505 VAN NESS AVENUE
SAN FRANCISCO, CA
psp@cpuc.ca.gov

Sara M. Kamins
CALIF PUBLIC UTILITIES COMMISSION
505 VAN NESS AVENUE
SAN FRANCISCO, CA
smk@cpuc.ca.gov

Scott Murtishaw
CALIF PUBLIC UTILITIES COMMISSION
505 VAN NESS AVENUE
SAN FRANCISCO, CA
sgm@cpuc.ca.gov

Steve Roscow
CALIF PUBLIC UTILITIES COMMISSION
505 VAN NESS AVENUE
SAN FRANCISCO, CA
scr@cpuc.ca.gov

Suzy Hong
CALIF PUBLIC UTILITIES COMMISSION
505 VAN NESS AVENUE
SAN FRANCISCO, CA
suh@cpuc.ca.gov

Theresa Cho
CALIF PUBLIC UTILITIES COMMISSION
505 VAN NESS AVENUE
SAN FRANCISCO, CA
tcx@cpuc.ca.gov

Tim G. Drew
CALIF PUBLIC UTILITIES COMMISSION
505 VAN NESS AVENUE
SAN FRANCISCO, CA
zap@cpuc.ca.gov

BILL LOCKYER
STATE OF CALIFORNIA, DEPT OF JUSTICE
PO BOX 944255
SACRAMENTO, CA
ken.alex@doj.ca.gov

KEN ALEX
1300 I STREET, SUITE 125
SACRAMENTO, CA
ken.alex@doj.ca.gov

JUDITH B. SANDERS
CALIFORNIA INDEPENDENT SYSTEM
OPERATOR
151 BLUE RAVINE ROAD
FOLSOM, CA
jsanders@caiso.com

JULIE GILL
CALIFORNIA INDEPENDENT SYSTEM
OPERATOR
151 BLUE RAVINE ROAD
FOLSOM, CA
jgill@caiso.com

MARY MCDONALD
CALIFORNIA INDEPENDENT SYSTEM
OPERATOR
151 BLUE RAVINE ROAD
FOLSOM, CA

PHILIP D. PETTINGILL
CALIFORNIA INDEPENDENT SYSTEM
OPERATOR
151 BLUE RAVINE ROAD
FOLSOM, CA
ppettingill@caiso.com

MICHAEL SCHEIBLE
CALIFORNIA AIR RESOURCES BOARD
1001 I STREET
SACRAMENTO, CA
mscheibl@arb.ca.gov

MEG GOTTSTEIN
PO BOX 210/21496 NATIONAL STREET
VOLCANO, CA
gottstein@volcano.net

PAM BURMICH
AIR RESOURCES BOARD
1001 I STREET, BOX 2815
SACRAMENTO, CA
pburmich@arb.ca.gov

B. B. BLEVINS
CALIFORNIA ENERGY COMMISSION
1516 9TH STREET, MS-39
SACRAMENTO, CA
bblevins@energy.state.ca.us

DEBORAH SLON
OFFICE OF THE ATTORNEY GENERAL
1300 I STREET, 15TH FLOOR
SACRAMENTO, CA
deborah.slon@doj.ca.gov

Don Schultz
CALIF PUBLIC UTILITIES COMMISSION
770 L STREET, SUITE 1050
SACRAMENTO, CA
dks@cpuc.ca.gov

KAREN GRIFFIN
CALIFORNIA ENERGY COMMISSION
1516 9TH STREET, MS 39
SACRAMENTO, CA
kgriffin@energy.state.ca.us

LISA DECARLO
CALIFORNIA ENERGY COMMISSION
1516 9TH STREET MS-14
SACRAMENTO, CA
ldecarlo@energy.state.ca.us

MICHELLE GARCIA
AIR RESOURCES BOARD
1001 I STREET
SACRAMENTO, CA
mgarcia@arb.ca.gov

PIERRE H. DUVAIR
CALIFORNIA ENERGY COMMISSION
1516 NINTH STREET, MS-41
SACRAMENTO, CA
pduvair@energy.state.ca.us

Wade McCartney
CALIF PUBLIC UTILITIES COMMISSION
770 L STREET, SUITE 1050
SACRAMENTO, CA
wsm@cpuc.ca.gov

CAROL J. HURLOCK
CALIFORNIA DEPT. OF WATER RESOURCES
3310 EL CAMINO AVE. RM 300
SACRAMENTO, CA
hurlock@water.ca.gov